

exmi014	:	----	MNSYQNTWEY	IILDGSPNN	----	TNMSNRYP	FAKD	PNIFPIN	LDA	CQGR	PQD	TUES	----	VS	:	55		
cry1a	:	----	-----	-----	-----	MDNPN	WINE	CIPYNC	LSM	VEVE	VLG	----	G	-----	ERIE	GYTPI	:	36
cry1a	:	----	-----	-----	-----	MDNPN	WINE	CIPYNC	LSM	VEVE	VLG	----	G	-----	ERIE	GYTPI	:	36
cry1a	:	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	61
cry2a	:	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	49
cry3a	:	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	75
cry3b	:	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	67
cry4a	:	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	71
cry4b	:	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	45
cry6a	:	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	42
cry7a	:	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	60
cry8a	:	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	70
cry10a	:	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	74
cry16a	:	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	69
cry19a	:	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	62
cry24a	:	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	63
cry25a	:	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	60
cry39a	:	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	64
cry40a	:	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	54

FIG. 1A

	*	100	*	120	*	140	*	160
exm1014	:	DIVTIGTYLIQFLLEPGIGGPIVFSIINKLIPSSG----	QSVAA	SICDLVSIIRKEVDESVLSDGVADFE	G-EMTAYQ	:	130	
cry1Aa	:	DISLSLTQFLLEFPVPCAGVLGLVDIIMGLFPGSQ-----	UDAFP	VOIEQLINRIIEFARNQAISRLEG--	LSNLY	:	107	
cry1Ac	:	DISLSLTQFLLEFPVPCAGVLGLVDIIMGLFPGSQ-----	UDAFV	QIEQLINRIIEFARNQAISRLEG--	LSNLY	:	107	
cry1Ia	:	TGIGIAGKILGTLGVPPFAGVQVAVSLYSFILGELWP-KG-KNQ--	WEIF	FMEHVEEIIINQKISTYARNKALTDLKG--	LGDAL	:	135	
cry2Aa	:	VAPVVGTVSSFLKKVGSLLICKRILSELMLGIIPPSGS----	TNLMQ	ILRETEQFLNQLNTDTLARVNAELIG--	LQANI	:	124	
cry3Aa1	:	KGISVVGDLGLGWGFPFGGALVSFYTNFLNTIWPSS----	EDP--	UKAFMEQVEALMDQKIADYAKNKALAE	LQG--	:	148	
cry3Bb	:	TGISVVGQILGWGVPFAGALTSFYQSFLNTIWPSS----	ADP--	UKAFMAQVEVLIDKKIEEYAKSKALAE	LQG--	:	141	
cry4Aa	:	AYTIWVGTVLTGFGFTTPLGLALIGFGLIPVLFPQAQ-DQSN	TWSD	FTITQKNIIKKEIASITYISNANKILNR--	SFNVI	:	148	
cry4Ba	:	TALKVAGAILKFNPPAGTVLTVLSAVLPILMPTNTP-TPERV	QND	FWINTGNLIDQTVTAYVRTDANAKMTV--	VKDYL	:	123	
cry6Aa	:	EWATIGAYIQTGLGLPVNEQQLRTHVNLSDISIPSDFSQL	YDVYCS	DKTSAEWGNKNLYPLIISANDIASYG-	FKVAG	:	121	
cry7Aa	:	TVSVTGTATLSALGVPGASFITNFYKLAGLLMPEN--GKI--	WDEF	WTEVEALIDQKIEEYVRNKALAE	LDG--	:	134	
cry8Aa	:	TGIGIVGRILGALGVPPFASQIASFYSFIVGQLWPSKS-V	DI--	WGEIMERVEELVDQKIEKYVKDKALAE	LKG--	:	145	
cry10Aa	:	AGLIWVGTMLGAFAPVLAAGIISFGTLLPIFWQGS----	DPANV	QDLLNIGGRPIQIEIDKNIINVLTSIVTP--	IKNQL	:	149	
cry16Aa	:	KGLGIVSTIVGFFGGSIIIDTIGLFYQISELLUPEDD-TQ	QYTQD	IMNHVEDLIDKRITVIRGNARTLAD--	LQGV	:	146	
cry19Ba	:	QLFKVGGSIIVAKILG-NIPEVGPLLSUMVSLFUTPIE-E	KNTV	WEDMIKYVANLLKQELTNDTLMRATSNLSC--	LNESL	:	138	
cry24Aa	:	KIVSIVLKTAKAVASSLADSISKSLGISKTIITENN-----	VSQVSN	VQVHQIINRRIQETTLIDLGESSLNG-L	VAIYN	:	136	
cry25Aa	:	VLASIVISTINLATSPSIGDAFALVSSIGEYUPETKT-----	SFPLS	VADVNRILREALDQNALNRATGKFNG-L	MDTYN	:	134	
cry39Aa1	:	TGVENLSTILSLFGIPLIGEGIDLLLGAADFLWPSDGGH	QYTWED	LMNHIEELMDERLETEKRTTALDDDLRG--	LKALL	:	142	
cry40Aa1	:	TITSIGIDLIEFLMEPSLGGINTLFSIIGKLIPTNH-----	QSVS	ALSICDLLSIIRKEVADSVLSAICRFLDGKLN	YR	:	130	

FIG. 1B

	*	180	*	200	*	220	*	240
exm1014	:	DYVLYLEDWLT	---	K-S--	NPKKLADVYKQFQAREEDFTKLLAGSLRQ	----	KAEILLPTVYQAANVHLLLRDAV	: 200
cry1a	:	QIYAESFREWEADP	-----	TNPALREEMRIQFMDNNSALT	TAIPLAVQ	-----	NYQVPLLSVYQAANLHLSVLRDVS	: 176
cry1ac	:	QIYAESFREWEADP	-----	TNPALREEMRIQFMDNNSALT	TAIPLFAVQ	-----	NYQVPLLSVYQAANLHLSVLRDVS	: 176
cry1ia	:	AVYHDSLESUVGN	-----	RNNTRARSVVKSOVYLAELMFVQKLP	SFAVS	-----	GEEVPLLPYIQAQAANLHLLLRDAS	: 204
cry2ae	:	REFNQVDNFLNPT	-----	QNPVPLSITSSVNTMQQLFLNRLP	QFIQG	-----	YQLLLPLFAQAANMHLSFIRDVI	: 192
cry3ae1	:	EDVVSALSSWQKNPV	---	SSRNPHSQGRIRELFSQAESHF	RNSMPSFAIS	-----	GYEVLFLTTYQAQAANTHLFLLKDAQ	: 220
cry3Bb	:	EDYVNAINSWUKKTP	L---	SLRSKRSQDRIRELFSQAESHF	RNSMPSFAVS	-----	KFEVLFLPTYQAQAANTHLLLLRDAQ	: 213
cry4a	:	STVYHHLKTFWENPN	---	PONTQDVRTQIQLVHYHFQNV	PIELVNSCPPNP	SDCDYYWILVLS	SYAQAANLHUTVYNQAV	: 225
cry4Ba	:	DQYTTKFNWKREPN	---	NQ-----	SYRTAVITQFWILTSAKLRETAV	YFSNIVGYELL	LLPIYAQVANFMILLIRDGL	: 193
cry6a	:	DPSIKKDGFFKKLQD	-----	ELDNIVDNNSDDAIKAIKD	FKARG	-----	ILIKEAKOVEEAAKMIVTSIDQF	: 186
cry7a	:	DKYOKALADWLGK	-----	QDDPEAILSVATEFRIIDSL	FEFSMPSFKVT	-----	GYEIPLLTTYQAQAANLHLLLRDST	: 203
cry8a	:	DVYQOSLEDWLEN	-----	RNDARTRSVVSNOFIALD	LMFVSSIPFAVS	-----	GHEVLLLAVYAQVANLHLLLRDAS	: 214
cry10a	:	DKYQEFFDKQEPAR	-----	THANAKAVHDLFTITLEP	IDKDLMLKNN	-----	ASYRIPTLPAYAQIATUHLNLLKHAA	: 218
cry16a	:	DDYNNMLKKWKODP	-----	KSTGNLSTLVTKFTALD	SDFNCAIRTVNNQGS	---	PGYELLPLPYAQAANLHLLLRDAQ	: 218
cry19Ba	:	NIYNRALAAWKQNK	-----	NNFASGELIRSYINDL	HLIFTRDIQSDFSLG	---	GYETVLLPSYASAANLHLLLRDVA	: 208
cry24a	:	RDYLGALAEWNNNK	-----	SNINYQTNVAEAFKTVERE	FFTKLKIYRTS	-----	SSQITLLPTFTQAANLHLSMLRDV	: 206
cry25a	:	TVYLNLODWDYDTRI	PANPQGS	SQLREAAARRSLEET	TERDFRKALAGEFAEAG	-----	SQIVLLPTYQAQAANLHLLLRDAM	: 210
cry39Aa1	:	GLFRDAFTDSWEKNQ	-----	NDPIAKNRVGGYFEDV	HTHFVKDMASIFSAT	-----	NYEVLLLPVYAQAANLHLLLRREGV	: 212
cry40Aa1	:	EYVLPYLEAWLKDQKPL	-	QKTNNSDIGQLVKYFELSERD	FWEILGGS	LARN-----	NAQILLLPYFCASCKCOLLLLRDAV	: 205

FIG. 1C

	*	260	*	280	*	300	*	320
axmi014	:	KYKKEUG	---	LVCPLYPGS	---	GRIDCNERLKAKIKEYINYCVGYNKGDLQIRQAGTSAEV	---	USKFNKFRR : 266
cry1Aa	:	VFGQRWGFDA	---	TINSRYNDLTRIGNYDYAVRWYNYNIGLERVUGPDSRD	---	UVRYNQFRR	:	234
cry1Ac	:	VFGQRWGFDA	---	TINSRYNDLTRIGNYDYAVRWYNYNIGLERVUGPDSRD	---	UVRYNQFRR	:	234
cry1Ia	:	IFGEWGLSS	---	EISTYMRQVERAGDYSCHVKGYSTGLNNLRCTMAES	---	UVRYNQFRR	:	262
cry2Aa	:	LNADWGISAA	---	LRTRYDYLRYNYTRDYSNYCINTYQTAFRGLNTRLH	---	DMLEFRT	:	246
cry3Aa1	:	IYGEWGYEKE	---	DIAEFYKRQIKLITQEYTDHCVKGYNVGLDKLRGSSYES	---	UVNFMRYRR	:	278
cry3Bb	:	VFGEWGYSE	---	DVAEFYHRQIKLITQOYTDHCVNUNYVGLNGLRGSTYDA	---	UVKFNRFRR	:	271
cry4Aa	:	KFEAYLKNNRQF	---	DYLEPLPTAIDYPPVLTKAIEDYINYCVTTYKKGLNLIKTTTPDSNLDGNINUNTYNTYRT	---	Q	:	297
cry4Ba	:	INAEWULAR	---	S	---	AGDQLYNTWVQYTKKEYIAHSITWYNNKGLDVLNKSNG	---	251
cry6Aa	:	LHGDQKKLEGVIN	---	---	---	IQKRLKEVQTALNQAHGESSPAHKELLEKVENLKT	---	238
cry7Aa	:	LYGDKWGFQTN	---	---	---	NIEENYNRQKKRISEYSDHCTKWYNSGLSRLNGSTYEQ	---	261
cry8Aa	:	IFGEWGFPG	---	---	---	EISRFYNRQVQLTAEYSDYCVKQYKIGLDKLGKGTSSKS	---	272
cry10Aa	:	TYNMIQLNQGINPSTFN	---	---	---	SSWYQGYLKRKKIQEYDYCYCIQTYNAGLTMIRTNINAT	---	283
cry16Aa	:	IYEDKWSARAN	---	A	---	RDWYVQIQLEKTEYKEYCINWYNNKGLNDFRTAGQ	---	275
cry19Ba	:	IYG-KEIGYPST	---	D	---	VEFYNEQKYTEKYSNYCVNTYKSGLESKKQIG	---	263
cry24Aa	:	MYQEGWNLQSH	---	---	---	INYSKELDDALEDYINYCVVEYTKGLNALRGSTAD	---	262
cry25Aa	:	QFRIDLGLIRPVG	---	---	---	VPITTSADPFSEFLRIKKYTDHCISYYDDGLAKIRSGSDG	---	278
cry39Aa1	:	IYGSRWGLAPA	---	---	---	ADFYHDQLKTYTAIYANHCVTWYNNGLAQOKELFAKSPN	---	271
cry40Aa1	:	QYEEQWFFLSAENVRSELISPNSGCDFTGDYYERLCKKIAEYDYCEYQYQAGLNQIKQAGTGADT	---	---	---	WAKFNKFRR	:	281

FIG. 1D

	*	340	*	360	*	380	*	400
exmi014	:	EMTLAVLDIIAIFFTYDFEKYPLA	-----	TSVELTREIYDTPVGYSG	-----	GNYGWERFFS	----	FNSVEANGTRGPGL : 332
cry1Aa	:	ELTLTVLDIVALFSNYDSRRYP	IR-----	TVSQLTREIYTPWLENFDG	SGFRGMAQRIEQN	-----	IRQPHL : 296	
cry1Ac	:	ELTLTVLDIVALFPNYDSRRYP	IR-----	TVSQLTREIYTPWLENFDG	SGFRGSAQGIERS	-----	IRSPHL : 296	
cry1Ia	:	DMTLMVLDIVALFPSYDTQMPYIK	-----	TTAQLTREVVYDALTGVHPPHPS	FTSTTTWYNNMAPSFAIEAAVVRNPHL	----	: 335	
cry2Aa	:	YMFLNVFEVVSUWLFKYQSLMVS	-----	SGANLYASGSGPQQTQSFTAQNP	FLYSLFQVN-----	SNYI	: 307	
cry3Aa1	:	EMTLTVLDIIALFPLYDVRLYPKE	-----	VKTELTRDVLTDPIVGVMNLRGYGT	TFNSNIEN-----	YIRKPHL	: 341	
cry3Bb	:	EMTLTVLDIIVLFPFYDIRLYSKG	-----	VKTELTRDIFDPIFSLMTLQEGPT	FLSNIEN-----	SIRKPHL	: 334	
cry4Aa	:	KMTTAVLDIVALFPNYDVCKYP	IG-----	VQSELTREIYQVIMFEESPYKYD	FQYQEDSLT-----	R-RPHL	: 359	
cry4Ba	:	EMTIQVLDIILALFASYDPRYPADKIDNTKLSKTE	FTREIYTAIVESPS	-----	SK-SIAALEAALT-----	R-DVHL	: 317	
cry6Aa	:	--TIKAEQDLEKKVEYSFLGLPLG	-----	FVYVEILENTAVQHIKNQIDEIKKQ	LDSAQHDLD-----	RDVKI	: 300	
cry7Aa	:	EMILMALDLVAVFPFHDPRYSME	-----	TSTQLTREVVYDTPVSLISINPD	IGPSFSQOMEN-----	TAIRTPHL	: 325	
cry8Aa	:	EMTLVLDIVALFPNYDTHMYP	IE-----	TTAQLTRDVYDPIAFNIVTSTGFCN	PWSTHSGILFYEVENNVRPPHL	----	: 345	
cry10Aa	:	EMTLTVLDIIAIFPNYDPEKYP	IG-----	VKSELIREVYTNVNSDTFR	-----	TITLENG-----	LTRNPTL : 341	
cry16Aa	:	EMTLTVLDIISNFPPIYDARLYP	-----	TEVKTELREIYSDVINCEIYGLMT	PYFSFEKAES-----	LYTRAPHL	: 340	
cry19Ba	:	EMTLVLDIVALFPLYDTGLYPSK	-----	DGKIHVKAELTREIYSDVINHDHVVYGL	MPVYISFEHAES-----	LYTRRPHA	: 333	
cry24Aa	:	DMTLMVLDIVALFPNYPVRYPLS	-----	TKISLSRKIYDTPVGRKTDSPSGD	WTNIGRTLAN-FNDLEREVTDSPSL	----	: 334	
cry25Aa	:	EMTLTVLDIVALYPTHNIKLYPI	P-----	TQTELSRVVYDTPVGCFCGMRKSD	IFSRLNFDYLEN-----	RLTRPREP	: 345	
cry39Aa1	:	DMTITVLDIILALFPTDARLYTKP	-----	IKTELTREIYSDVLNLDVYGVQ	QTDLNKNEAAF-----	TRSPHL	: 334	
cry40Aa1	:	EMTLTVLDIIAIFQTYDFKKYPLP	-----	THVELTREIYDTPVGYSS	-----	GTYSULKYWTGAFWNTLEANGTRGPGL	: 349	

FIG. 1E

	*	420	*	440	*	460	*	480
exm1014	:	VTULQADIDYSHSINLQ	-----	LGYLSCUGGTRHYEDFTK	--	CNGAFQRMSTGTTNNPRNII	FCGTDIFKIISLARY	: 402
cry1Aa	:	MDILNSITTYDVHRG	-----	FNYUSCHQITASPVGSGPEFAFPLFCNAGNAA	--	PP-VLVSLTGLGIFRILSSPL		: 365
cry1Ac	:	MDILNSITTYDAHRG	-----	YYYUSCHQIMASPVGSGPEFTFPLYGTMGNAA	--	PQQRIVAQLGQGVYRTLSSTL		: 366
cry1Ia	:	LDLEQVTIYSLLS	-----	RUSNTQYMMUGGKLEFRITGLINISTQGSTINTSINPV	--	TLPTSTRDYVYRTESLAGLNL		: 410
cry2Aa	:	LSGISGTRLSITFPNIG	-----	GLPGSTTTSHLSARVNYSGVSSGLIGCATNLNHNFCSTVLPPLSTPFVRSULD	--	SG		: 381
cry3Aa1	:	FDYLHRIQFHTRFQP	-----	GYYGND SFNYUSGNYVSTRPSIGSNDIITSPFYGNKSE	--	PVQNL	EFNGEKVYRAVANTML	: 416
cry3Bb	:	FDYLQGLEFHTRLQP	-----	GYFGKDSFNYUSGNYVETRPISGSKTITSPFYGDKSTE	--	PVQKLS	FDGQKVYRTIANTDW	: 409
cry4Aa	:	FTULDSLNFYEKAQTT	-----	P-----	NNFTSHYMMFHYTLDMISQKSSVFG	--	NHNVT	D-KLKSLGLATNIYIFLLNVI
cry4Ba	:	FTULKRVDFTWNTIYQ	-----	D-----	LRFLSANKIGFSYTNSSAMQESGIYSSGFGSN	--	LTHQIQLNSNYVYKTSITDTSS	: 388
cry6Aa	:	IGMLNSINTDIDNLYS	-----	QGQEA	IKVFQKLQIGI	WATIGAQIENLR	TTSLQEVQDSDDAEIQIELEDA	: 368
cry7Aa	:	VDYLDELYIYTSKYKAF	-----	SHEIQPDLFYWSAHKVSFKKSEQSN	--	LYTTGIYKTSGYI	--SSGAYSFHGNDIYRTLAAPSV	: 402
cry8Aa	:	FDILSSVEINTSRGGI	-----	TLNNDAYINYSCHTLYKRYRTADSTVYTYTANYGRITSEKN	--	SFALED	RDI	FEIN
cry10Aa	:	FTWINQGRFYTRNSR	-----	DILDPYD	IFSFIGNQMAFTHIMDDRNII	WGAVHGNII	ISQDTSKVFPFVFNKPI	: 409
cry16Aa	:	FTULKGRFVTVNSISY	-----	WTFLSGGQNKYSYTNNS	--	SIN	ESFRGQD	TDYGGTSS
cry19Ba	:	FTULKGRFVTVNSINS	-----	WTFLSGGENRYFLTHGEGTYNGPFLGQDTEYGGTSSYID	--	ISNNSS	IYVNLTKNY	: 404
cry24Aa	:	VKULGDMTITTCALDSYRPTSPGDRIGVWYGNINA	-----	FYHTGRD	VYVFRQTD	TAYEDP	--STFISN	ILYDDIYKLDLRAA
cry25Aa	:	FNYLNSVQLFASTVSNS	-----	NN-----	GEVLRGNL	KNIMFEGGWTASRS	GDGVTTGTPFSTMD	WSYGCYPRKHYAEIT
cry39Aa1	:	VTRLRGDFYTRTKYA	-----	Y---	WRYLAGHTNYVFS	FTGNG--	TIYSS	FNNWYD
cry40Aa1	:	VTWLRSIGIYNEVYSR	-----	YFSGWVGTRHYEDYTT	--	CNGNFQRM	SGTTSNDLRD	ISFPNSD
	:							IFKIESKAIM
	:							: 416

FIG. 1F

	*	500	*	520	*	540	*	560
exmi014	:	AMQFFVGSIPRHLVSRAEFFPTTLNTFLYEVS--GTSQTIESVLPGINKDLPP	:	-----SRTNYSRHSNAACVQN	:	473		
cry1Aa	:	YRRILG-SGPNNQELFVLDGTEFFASLITNLPTTIYRQGTVDSLDWIPPDNS	:	-----VPPRAGFSRHSVHTMLSQ	:	439		
cry1Ac	:	YRRPFN--IGINNQLSVLDGTEFAYG-TSSNLPNAVRSKGTVDSLDEIPQNNN	:	-----VPPRQGFHSRHSVSMFRS	:	438		
cry1Ia	:	LTPVNGVPRVDTHUKFVTHPIASDNFYYPGYAGIG---TQLODSENELPPEATG	:	-----QPNYESYSRHSLSHIGLISA	:	481		
cry2Aa	:	TDRGVATSTNWQTESFQTTLSLRCGAFSARGNSNYFPDYFIRNISGVPLVIRNED	:	-----LTRPLHYNQIRNIESPSG	:	455		
cry3Aa1	:	AVUPS-AVYSGVTKVEFSQYNDQIDEASTQTYDSKRN-VGAVSUDSIDQLPETTD	:	-----EPLKGYSHQLNYVMCFM	:	489		
cry3Bb	:	AAUPNGKVYLGVTKVDFSQYDDQKNETSTQTYDSKRNHVSQAQSIDQLPETTD	:	-----EPLKAYSHQLNYAECFLM	:	484		
cry4Aa	:	DMKYLNDYNNISKMDFFITNGTRLLEKELTAGSGQITTDVNMKNIFGLPILKRRENQGNPTL	:	-----FTTYDNYSHLSFIKSLSI	:	509		
cry4Ba	:	P----S---NRVTKMDFYKIDGTLASYNSTPTP---EGLRTTFFGFSTNENTPNQ	:	-----PTVNDYTHLSYIKTDVI	:	453		
cry6Aa	:	AULVVAQEARDFTLNAYSTNSRQNLPINVISDCNCSTTNMTSNQYSNPTTNMTSN	:	-----QYMSHEYTSLPNNFMLSRN	:	444		
cry7Aa	:	VVYPY---TQNYGVEQVEFYGVKGHVHYRGDNKYDLT-----YDSIDQLPPDGE	:	-----PIHEKYTHRLCHATAIFK	:	466		
cry8Aa	:	YYQKAYGVPGSWFHMVKRGTSSTTAYLYSKHTALQG--CTQWYESSDEIPLDRT	:	-----VPVAESYSRHSLSHITSHSF	:	494		
cry10Aa	:	DKVELVRHREYSDIITYEMIFFNSSEVFVRYSSNSTIENNYKRTDSYMIKQTKN	:	-----EYGHSTLSYIKTDNY	:	479		
cry16Aa	:	EYIYPCGDPVMTKMNFSVTDNNSKELIYGAHRINKPVVRTDFDLTNKEGTEL	:	-----AKYNDYNHLSYMLINGE	:	483		
cry19Ba	:	EWIYPTDPMNITKINFSTIDNSNSESIEYGAERMMKPTVRTDFMFLNRAGNPG	:	-----TTYNDYNHLSYMLINGE	:	477		
cry24Aa	:	AVSTIQGANDTTFGVSSSRFFDIRGNQLYQSNKP--YPSLPITITFPGEESSEGN	:	-----ANDYSHLLCDVKILQE	:	482		
cry25Aa	:	QALPGLMNSIHVIGIDSFRAIGPGGQGDHTFSLPGEDMYDCCKVQINPLEDYRNS	:	-----DHWISDMMTINQSVQL	:	491		
cry39Aa1	:	TNISPYTDPVGISQMQFSLTNQQLTYTGTSAPKYP-----VRETFEIPPTDEKP	:	-----LTYENYSHLSYMTSAQH	:	473		
cry40Aa1	:	NLVGEIN-ARPEYRVSRAEFSESTAFIYLYDAGNSG-LSSMTITTSKLPGIKNPEP	:	-----SYRDYSRHSNAACVGA	:	486		

FIG. 1G

	*	580	*	600	*	620	*	640	
exm1014	:	ETS-----		RVN	FGW	THTSMKGNRIY	PKITQIPAVKAFALPAGTGYAGGYVT-AGPGYTG	GDVVTLPYQAS-----	: 540
cry1Aa	:	AAG--		AVY	LRAPTFSWQHRS	AEFNNIIPSSQITQIPLTKSTNLGSGTSV-----	VKPGCFTGGDILRRTSPG-----	Q-----	: 506
cry1Ac	:	GFSN	SSVSIIRAPMFSW	IHRSAEFNNIIASDSITQIPAVKGNFLP	MGSVI-----	S-GPCFTGGDLVRLNSGNNIQMR			: 511
cry1Ia	:	S-----		HVK	ALVYSWTHRS	ADRTNTTIEPNSITQIPLVKAFNLSSGAAV-----	VRPGCFTGGDILRRTN-----	TGT-----	: 543
cry2Aa	:	TPGG	ARAYLVSVHNRKNNIYA	ANENGTMHLAPEDYTGFTISPIHATQVNNQ	TRTFISEKFGNQ	EDSLRFEQSN-----			: 529
cry3Aa1	:	QGS-----		RGT	IPVLTWTHKSVD	FFNMIDSKKITQLPVKAYKIQSGASV-----	VAGPRFTGGDIIQCTE-----	NGS-----	: 553
cry3Bb	:	QDR-----		RGT	IPFFTWTHRSVD	FFNTIDAEEKITQLPVKAYALSSGASI-----	IEGPGFTGCNLLFLKES-----	NSI-----	: 550
cry4Aa	:	PATY-----		KTQ	VYTFAMTHSSVD	PKNTIYTHLITQIPAVKANSIGTASKV-----	VQPGHTGGDLIDFKDHFKIT-----		: 576
cry4Ba	:	DYN-----		SMR	VSFAWTHKI	VD PNNQIYTDAITQVPVKS	NFLMATKV-----	IKGPGHTGGDLVALTSNGTLSGRM-----	: 521
cry6Aa	:	SNLEYKCPENNFIYQYNN	SDUYNNSDUYNN-----						: 475
cry7Aa	:	STP--		DYD	NATIPIFS	WTHRSAEYNNRIYPNKTKIPAVKMYKDDDPSTV-----	VKPGCFTGGDLVKRGS-----	TGY-----	: 533
cry8Aa	:	SKNG-		SAY	GSFPVFWTHTS	ADLNNTIYSDKITQIPAVKGNMLYLGGSV-----	VQPGCFTGGDILKRTN-----	PSI-----	: 562
cry10Aa	:	IFS	VVR--	ERRR	VAFSWTHTSVD	FQNTIDLNITQIHALKALKVSSDSKIVK-----	GPCHTGGDLVILKDSMD-----		: 546
cry16Aa	:	TFGQ-----		KRH	GSFAFTHSSVD	PNNTIAANKITQIPVWKASSINGSISI-----	EKPGCFTGGDLVKMRADS-----		: 547
cry19Ba	:	TFGQ-----		KRH	GSFAFTHSSVD	RNTIIVPKIVQIPAVKTNLVGANLIK-----	GPCHTGGDLLKLEYER-----		: 539
cry24Aa	:	DSS	NICEGRSLLSHAWTHAS	LDNRNNTILPDEITQIPAVTAYELRGNS-----	VVAGPGSTGGDLVKMSYHS-----				: 550
cry25Aa	:	ASN	PTQTFAFSALSLGWHSS	SAGNRNVVYVDKITQIPATKIVREHPMIK-----	GPCHTGGDLADLSSNS-DILQY-----				: 561
cry39Aa1	:	FGD-----		KKI	GTYTFAWMHE	SVD FDNRVDPDKITQIPAVKGDYLOQYVVK-----	QGPCHTGGDLVSMIRTD-----		: 536
cry40Aa1	:	GNS-----		RIN	VYGTHTSMSKYNLIY	PDKITQIPAVKAFDISDTG-----	PGQVI-AGPGHTG	GNVVSLLPYYSR-----	: 550

FIG. 1H

	*	660	*	680	*	700	*	720																																																								
exmi014	:	--LKIRLTSAPT	KNYRVR	LRV	ASG	PGPFR	VERWS--PSSVSNAM	SRPATGG-----YSS-----FDYVDTLVTTFN : 605																																																								
cry1a	:	ISTLRVNITAP	LSQRYRVR	IRY	AST	INLQF	HSIDG--RPINQGNF	SATWSSG-----SNLQSGFR	IVGFTTFFNF : 576																																																							
cry1ac	:	GYIEVPIHFP	STSTRV	RVRY	ASVTP	IHLNV	WUGN--SSIFM	TVPATATSL-----DNLQSSDF	GYFESANAFTS : 581																																																							
cry1la	:	FGDIRVNINP	PFACQYR	VRIRY	AST	DLQF	HSING--KALNQG	NFSATMURG-----EDLDYKT	FRIVGFTTFFSF : 613																																																							
cry2Aa	:	--TTARYT	LRGNGSN	YMLY	LRV	SSIGN	STIRVT	INGRVYTVSNVNT	TTNNDGWN-----DNGARFSD	INIGNIVASDNT : 601																																																						
cry3Aa1	:	AATTYVT	PDVSY	SQYR	ARI	HYAST	SQIT	FTLSLDG--APFNQVY	FDKTI	NGK-----DRTLTYNS	FNLASFTSTFEL : 623																																																					
cry3Bb	:	AKFKVTLNS	AALLQRY	VRVR	IRY	AST	TNLR	L	LVQNSN--NDFLVIY	IMKTMKD-----DDLTYQT	FDLATTNSMNGF : 620																																																					
cry4Aa	:	-----CQHSN	FQCSYF	IRIRY	ASNG--SAN	TRAVI--NLSIP	GVAE	L	GMALNP	TFSG	TDYTNLKYK	DFQYLEFSNEVKF : 646																																																				
cry4Ba	:	EIQCKTSI	FNDPTR	SYGLR	IRYA	ANSPIV	LNVS	YVL--QGVSR	GTTISTESTFSR	PNNI	IPTDLKYEE	FRYKDPFDALVP : 599																																																				
cry6Aa	:	-----																																																														
cry7Aa	:	IGD	IKATVNS	PLSQYR	VRVR	YATN	VS	GQFN	VYIND--KITLQ	KFQNT	VETIGEG-----KDLTYGS	FGYIEYSTIIQF : 606																																																				
cry8Aa	:	LGT	FAVT	VNGSL	SQRYR	VRIRY	AST	DFE	FLYLG--DTIEK	RFRW	KTM	DNG-----ASLTYET	FKFASFI	TD	FQF : 631																																																	
cry10Aa	:	---	FRVR	FLK	NVSR	QYQYR	IRY	ATN	APK	TVFL	TG	IDTIS	VELP	STTSR	QNP	N-----ATDLTYAD	FGYVTFPRIVPN : 616																																															
cry16Aa	:	-GL	TRF	KAEL	LDKKYR	VRIRY	KCNYS	SKL	LRK	K	G	EGY	IQQ	I	H	MIS	PTYG-----AFS	YLESFT	TTTTTEN	IFDL : 618																																												
cry19Ba	:	-FL	SLR	IK-L	IAS	MTFR	IRIRY	ASNIS	GQ	MMINIG---YQN	P	TYF	MLIPT	TSRDY-----TEL	K	FED	FQ	L	V	D	T	S	YI	V	S	G : 608																																						
cry24Aa	:	--VMS	FKVYC	SEL	KNYR	VRIRY	ASH	CNCQ	FL	KRUP	STG	VAPR	QUAR	HN	VQ	GTFS-----NSM	R	YEA	F	K	Y	L	D	I	F	T	T	P	E : 622																																			
cry25Aa	:	D	L	R	S	D	Y	D	R	L	T	E	D	V	P	F	R	I	R	C	A	S	I	G	V	S	T	I	S	V	D	N	UG---SSP	Q	V	T	V	A	S	T	A	A	S-----L	D	T	L	K	Y	E	S	F	Q	Y	V	S	I	P	G	N	Y	Y	F : 631		
cry39Aa1	:	---	L	G	I	N	V	Y	F	P	Q	L	D	Y	R	I	R	Y	S	T	S	N	G	Y	L	I	Y	S	P	N	T	K	I	V	Y	L	P	P	T	L	V	D	G	Q	P	T-----F	D	P	M	D	F	S	A	F	R	V	E	V	P	A	S	F	R	A : 606
cry40Aa1	:	--L	K	I	R	L	I	P	A	S	T	M	K	N	Y	L	V	R	V	R	Y	T	S	T	S	N	G	R	L	L	V	E	R	W	S-P	S	S	I	I	N	S	Y	F	L	P	S	T	G	P-----G	D	S-----F	G	Y	V	D	T	L	V	T	T	F	N : 615		

FIG. 11

	*	740	*	760	*	780	*
exmi014	: QSG	-----VEIIIIQNLSGYHLIVDKVEFIPIDIOIEKC	----	TKQFEGDICRCEGVQSLETKKEIVNSLFIN	:	669	
cry1Aa	: SNG	-----SSVFTLSAHVFNCSNEVYIDRIEFVPAEVTFAE	----	YDLERAQAKAVNELFTSSNQIGLKTIDYDYHID	:	645	
cry1Ac	: SLG	-----N	-----IVGVNFSGTAGVIIDRFEFIPVATLEAE	----	YNLERAQAKAVNALFTSTNQLGLKTINVDYHID	:	647
cry1Ia	: LDV	-----QSTFT	-----GAUNFSSGNEVYIDRIEFVPEVTYAE	----	YDFEKAQEKVTALFTSTNPRGLKIDVKDYHID	:	682
cry2Aa	: NVT	-----	-----LDINVTLNSGTFDLNMFVPTNLPLY	----	-----	:	633
cry3Aa1	: SG	-----NNLQ	-----GVITGLSAGDKVYIDKIEFIPVN	----	-----	:	652
cry3Bb	: SGD	-----KNELI	-----GAESFVSNEKIYIDKIEFIPVQL	----	-----	:	652
cry4Aa	: APN	-----QNISLV	-----MRSDVYITNTVLIDKIEFLPITRSIREDKOKLETVQOIINTFYANPIKNTLQSELTDYDID	:	719		
cry4Ba	: MRLSSNQLITIA	-----QPLNMTSNNQVIIDRIEIIPIITQSVLDETENQNLESEREVVNALFTINDAKDALNIGTIDYDID	:	675			
cry6Aa	:	-----	-----	-----	-----	:	-
cry7Aa	: PDE	-----HPKITIHLSDLSNSSFYVDSIEFIPVDVNYAEK	----	EKLEKAQKAVNTLFTEGRN-ALQKDVTIDYKVD	:	674	
cry8Aa	: RET	-----QDKILL	-----SMGDFSSGQEVYIDRIEFIPVDETYAE	----	QDLEAAKKAVALFTNTKD-GLRPGVIDYEVN	:	699
cry10Aa	: KTFEG	-----EDTLLM	-----LYGTPNHSYNIYIDKIEFIPITQSVLDYTEKQNIKTQKIIVMDLFVN	----	-----	:	675
cry16Aa	: TME	-----VTYP	-----GRQFVEDIPSLIDKIEFLPTN	----	-----	:	648
cry19Ba	: GPS	-----ISSN	-----LWLDNFSNGPVIIDKIEFIPLGITLNAQAGDYTDQANGYHQMYNSGYNVNOEYNTYYQS	:	679		
cry24Aa	: EMN	-----	-----FATIDLESGDLFIDKIEFIPVSGSAFYEKGQNIKTQKAVNDLFIN	----	-----	:	674
cry25Aa	: DSAP	-----	-----RIRLLRQP-GRLLVDRIEIIPVNFPLS	----	-----EQENKSVDSLFIN	:	675
cry39Aa1	: SVAG	-----	-----Y.WFTIEAGFGPVIYIDKIEFIPDNTTTTLEYESGGRDLEKTKNAVNDLFIN	----	-----	:	659
cry40Aa1	: QPG	-----	-----VEIIIIQNLD-TPINVDKVEFIPVNS	----	-----TALEYE	:	666
					-----GKQSLEKAQDVVNDLFVK	:	

FIG. 1J